

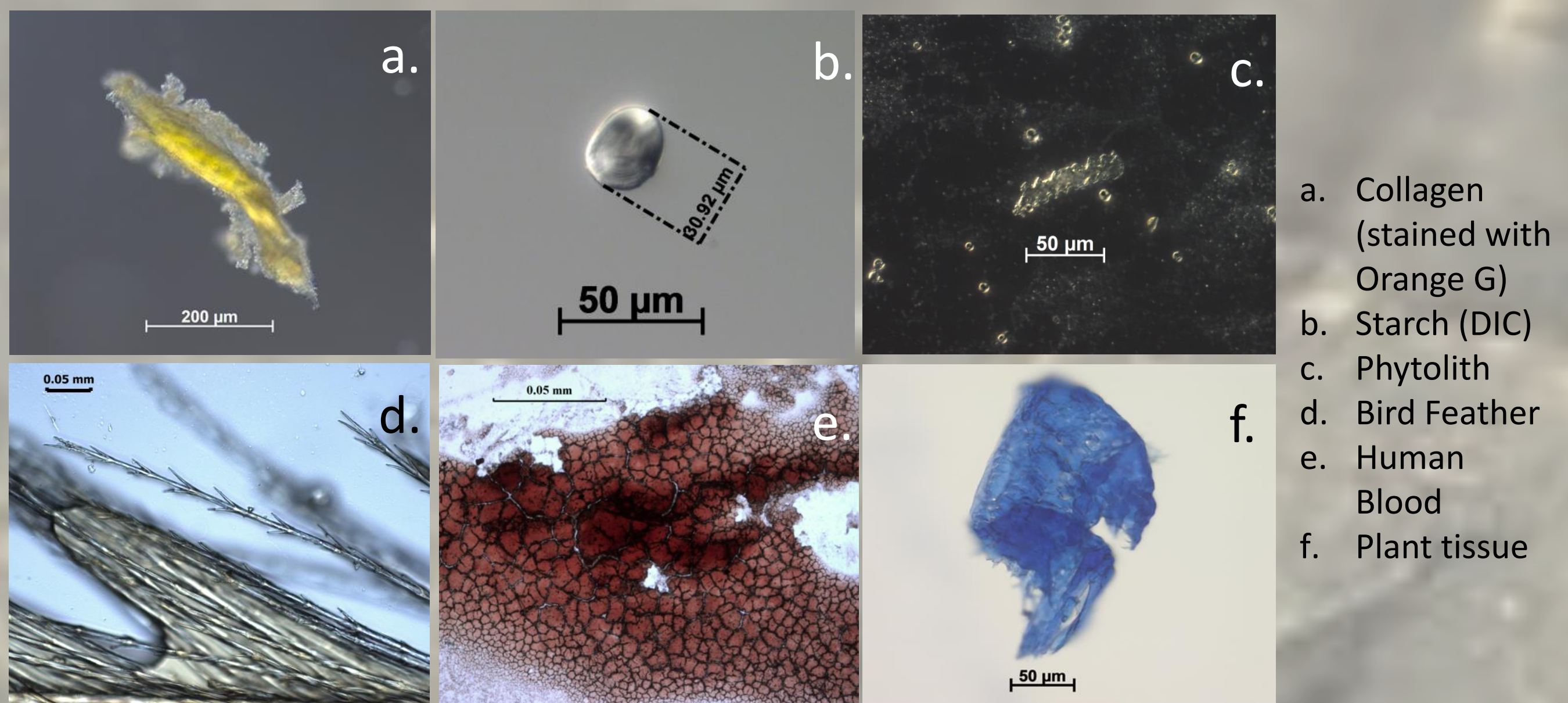
Residue analysis of prehistoric stone tools: a critical evaluation of current methods and practices through experimentation.

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Introduction

Residue analysis has recently become a widely applied method in reconstructing the lifecycle of prehistoric stone tools. The aim is the detection and the identification of residues that are formed during the use life of these tools. Recognizing these residues is usually based on their distinctive morphologies by means of light microscopy. When combined with use-wear analysis, the method can provide valuable insights into some of the most debated topics in prehistoric archaeology (e.g. subsistence patterns, projectile technology).



Towards an reliable experiment-based method

Although residue analysis has been applied for more than 40 years, it cannot be considered a standardized method. A wide variety of different techniques have been used since then, mainly by self-taught analysts according to their own preferences. Techniques have not been validated through experimental control and blind testing, both (of which are) crucial for developing any reliable analytical method. My PhD focuses primarily on these methodological issues.



Experimentation

Experiments are essential for the understanding of how residues were formed during the lifecycle of prehistoric stone tools. Experimental work can help us in determining whether the residues were deposited on the tool's surface as a result of use or due to other processes. It is also crucial for finding the most suitable techniques for extracting and identifying residues. The analytical method chosen may have an impact on the results of a residue analysis.



Blind testing

Blind tests are an important step in testing the reliability of the method, because they point out its limits and strengths. This can help to refine the method in order to maximize its accuracy and precision.



Australian connection

Since residue analysis method has been mostly developed in Australia, I am taking part in a research trainee program that has been set up to teach the method at the University of Wollongong. The program is supervised by Prof. Richard Fullagar, who is also part of the guiding committee of my PhD.



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More info



<http://web.philo.ulg.ac.be/prehist/our-team/dries-cnuts/>

